

# International



Innovation in Knowledge Based and Intelligent Engineering Systems

## INVITED SESSION SUMMARY

## Title of Session:

Intelligent Computer Simulation and Smart System for Medicine

Name of Chair: Tomoko Tateyama

(Hiroshima Institute of Technology, Intelligent Visual analytics Lab)

## **Details of Session:**

In recent years, since Virtual Reality (VR) and its interactive devices (smart devices), such as Kinect, HMD, and so on, have become easily to utilize, therefore, it is also used in the field of computer-aided diagnosis (CADx). Surgical planning, prediction after surgery or therapy, or dynamic analysis of pathology will be able to be performed without imposing heavy burden on patients by using image-based computational simulations, because it is non-invasive. Therefore, the image-based virtual simulation by the above techniques is one of important topics. The aim of this session is to discuss recent trends and technologies of computational simulation and computer intelligence for medicine and healthcare.

#### **SCOPES**

Topics of the proposed area cover, but not limited to, the following:

- Neural networks, fuzzy paradigms, genetic algorithms, expert systems in medical and healthcare applications
- Intelligent Medical Image Analysis and Understanding by smart device
- Intelligent Medical Visual Information retrieval
- Intelligent operating room of the future
- Computer aided diagnosis and surgery by smart device
- Medical simulation and evaluation system Development
- Medical E-learning System Development
- Intelligent Medical Device and Projection
- Novel next generation intelligent medical and clinical applications

## Paper submission

Prospective authors should note that only original and previously unpublished manuscripts will be considered. Papers are invited from prospective authors with interests in this particular special session and related areas of application.

Submissions must be formatted according to the instructions which can be found on the Springer website (<a href="http://www.springer.com/series/8767">http://www.springer.com/series/8767</a>) under "Instructions for Authors". Papers must be submitted in PDF format for review purposes, but authors are required to upload editable word-processor files (LaTeX or MS Word) at the end of the review process. The required paper length is 10 pages in publisher format. Papers longer than this may be subject to an additional charge. Short paper (2 or 3 pages) is also welcome Papers to be considered for the conference must be submitted in PDF form through the PROSE online submission and review system. Please visit the conference web site (<a href="http://inmed-17.inmedhealth.org/submission.php">http://inmed-17.inmedhealth.org/submission.php</a>) for detailed information about paper submission.

# **Importance Data:**

Paper submission: 1 February 2017

Notification of paper acceptance: 24 February 2017 Camera-ready of accepted papers: 13 March 2017

# Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Research Center for Intelligent Visual Analytics (in Hiroshima Institute of Technology)

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